

(12) **United States Patent**
Veis et al.

(10) **Patent No.:** **US 9,409,387 B2**
(45) **Date of Patent:** **Aug. 9, 2016**

(54) **ADJUSTABLE PRINTHEAD**

(56) **References Cited**

(71) Applicant: **Hewlett-Packard Industrial Printing Ltd.**, Netanya (IL)

U.S. PATENT DOCUMENTS

(72) Inventors: **Alex Veis**, Kadima (IL); **Eitan Pinhasi**, Netanya (IL); **Chen Turkenitz**, Ramat Hasharon (IL); **Adam Goren**, Netanya (IL)

4,775,870 A 10/1988 Grimm et al.
4,913,567 A * 4/1990 Imamaki B41J 25/312
347/198
4,990,004 A 2/1991 Kawahara et al.
5,473,984 A 12/1995 Terrell, Jr. et al.
5,488,396 A 1/1996 Burke et al.
5,696,541 A * 12/1997 Akahane B41J 25/003
347/8

(73) Assignee: **Hewlett-Packard Industrial Printing LTD**, Netanya (IL)

6,076,915 A 6/2000 Gast et al.
7,946,684 B2 5/2011 Drury et al.

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(Continued)

FOREIGN PATENT DOCUMENTS

(21) Appl. No.: **14/610,539**

EP 2353868 A1 8/2011
JP 04052147 A * 2/1992

(22) Filed: **Jan. 30, 2015**

(Continued)

(65) **Prior Publication Data**

US 2015/0210069 A1 Jul. 30, 2015

OTHER PUBLICATIONS

International Search Report and Written Opinion dated Jun. 26, 2014, issued on European Patent Application No. 14275018.1 filed Jan. 30, 2014, European Patent Office.

(30) **Foreign Application Priority Data**

Jan. 30, 2014 (EP) 14275018

Primary Examiner — Julian Huffman

Assistant Examiner — Michael Konczal

(74) *Attorney, Agent, or Firm* — HP Inc Patent Department

(51) **Int. Cl.**

B41J 2/045 (2006.01)

B41J 2/155 (2006.01)

B41J 25/00 (2006.01)

(57) **ABSTRACT**

(52) **U.S. Cl.**

CPC **B41J 2/04505** (2013.01); **B41J 2/155** (2013.01); **B41J 25/001** (2013.01); **B41J 2202/19** (2013.01); **B41J 2202/20** (2013.01)

A printhead assembly includes a printbar beam member, a printhead, and a first eccentric pin. The printbar beam member includes a beam surface and a first cavity disposed through the beam surface. The printhead includes a printhead surface and a second cavity disposed through the printhead surface. The first eccentric pin may be inserted into the first cavity and the second cavity to couple the printhead to the printbar beam member. The first eccentric pin may rotate to adjust a position of the printhead relative to the printbar beam member along a first axis along the beam surface.

(58) **Field of Classification Search**

CPC B41J 2/04505; B41J 29/38; B41J 29/393; B41J 25/001; B41J 2/155; B41J 2002/19; B41J 2002/20

USPC 347/14

See application file for complete search history.

9 Claims, 8 Drawing Sheets

200

